BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Demand Side Resource Programs.	Rulemaking 14-10-003 (Filed October 2, 2014)

VOTE SOLAR COMMENTS ON PROPOSED DECISION ADOPTING AN EXPANDED SCOPE, A DEFINITION, AND A GOAL FOR THE INTEGRATION OF DEMAND SIDE RESOURCES

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I. INTRODUCTION

Pursuant to Rule 14.3 of the California Public Utilities Commission's ("Commission") Rules of Practice and Procedure, Vote Solar respectfully submits the following comments on Commissioner Florio's August 13, 2015 Proposed Decision ("PD") Adopting an Expanded Scope, a Definition, and a Goal for the Integration of Demand Side Resources ("IDSR").

Vote Solar is a non-profit, non-partisan, grassroots organization working to fight climate change and foster economic opportunity by bringing solar energy into the mainstream. Vote Solar has been an active participant in the Commission's IDSR workshops and proceedings. We appreciate the Commission's thoughtful consideration of the issues, flexibility in crafting a scope and goals that cut across other proceedings, and openness to stakeholder input. We support the proposed definition and goals expressed in the PD, as well as expanded scope of the proceeding. We are particularly pleased with the focus on creating an end-to-end framework and recognition of the need for this proceeding to work with the Distribution Resources Planning ("DRP")[1] proceeding to realize that objective.

[1] Order Instituting Rulemaking Regarding the Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769, August 14, 2014.

Our comments focus on four main areas that we believe were not sufficiently addressed in the PD:

A. Aligning the IDSR and DRP Proceedings
   - Joint IDSR/DRP coordination effort
   - Schedule and phasing for development of procurement mechanisms
   - Adopting guiding principles for all Distributed Energy Resources ("DER") related proceedings

B. Maximizing the Value of Consumer/Third-Party DSR/DER
   - Creating optimized bundles/portfolios of DSR/DER

C. Aligning Utility Financial Motives with the Goal of IDSR
   - Initiate a stakeholder process to align utility financial motives with IDSR goal
   - Adopt interim mechanisms to avoid unnecessary and costly 'grid modernization' investments

D. Phase II IDSR Pilots
   - Coordinate with proposed DRP pilots, existing or proposed DER-related pilots, demonstrations and programs to avoid duplication and delay

II. DISCUSSION

A. Aligning The IDSR And DRP Proceedings

In the Assigned Commissioner's Ruling ("ACR") on Guidance for Public Utilities Code Section 769 – Distribution Resources Planning ("Guidance"), the Commission proposed a phasing of the DRP process.[2] The first two phases (Phase 1 and 2(a)) involve evaluating the

[2] Assigned Commissioner's Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resources Planning, 2/6/2015, Attachment, pp. 11-13.

capacity of the grid to support DER, developing models and tools to evaluate optimal locational benefits DER portfolios and developing DER 'development zones,' among other things. It's not until the third phase (Phase 2(b), beginning in 2018) that the Guidance contemplates the "stakeholder-driven development of DER procurement policy and mechanisms for the IOUs."[3] Given that this phase *begins* in 2018, we wouldn't expect the resulting policies and mechanisms to be implemented until 2019 at the earliest.

This is not consistent with what we interpret to be the intent of the IDSR phases and certainly doesn't bode well for the development of an end-to-end framework discussed in the IDSR PD in a timeframe that will have any meaningful impact on DER deployment for the next three to four years. Vote Solar is concerned that, unless the two proceedings are more closely aligned in their objectives and schedules, there will be significant delays in implementing the envisioned end-to-end framework. Further, as we stated in our DRP Protest, the utilities run the risk that the increasingly rapid pace of customer DER adoption will overtake the DRP planning process. In other words, there will be a significant amount of customer/third-party DER already on the grid which could result in suboptimal DER deployment, missed opportunities to deploy DER in locations and of the types/combinations most beneficial to the grid, significant overinvestment in 'grid modernization' in the name of accommodating DER, and higher costs for DER programs.

Vote Solar recommends that the PD be revised to order that a joint DRP/ISDR process be established to develop a procurement framework, including procurement mechanisms that maximize grid and consumer benefits and which measure progress towards the State's climate

[3] *Ibid*, Attachment, p. 12.

goals. We believe this process must be accelerated to avoid poor 'grid modernization' investment decisions and to maximize the value of customer and third-party DER.

Further, Vote Solar recommends the PD be revised to define the vision and guiding principles for IDSR that would apply to any related proceedings to ensure they are aligned with the IDSR objectives and timing and to avoid duplication or wasted opportunities and expenditures.

B. Maximizing The Value Of DSR/DER Via Optimized Portfolios

The PD adopts the following definition of the integration of DSR:

> ***A regulatory framework, developed by the Commission, to enable utility customers to effectively and efficiently choose from an array of demand-side and distributed energy resources taking into consideration the impact and interaction of resources on the system as a whole as well as on an individual customer's energy usage.***[4]

We note that the Commission included the phrase "… effectively and efficiently choose from an array" of DSR/DER. We believe this is significant, as bundles or portfolios of DER often offer greater benefits to the grid and potentially to customers. The following excerpt from Vote Solar's Protest of Southern California Edison's ("SCE"), Pacific Gas and Electric Company's ("PG&E") and Sand Diego Gas and Electric's ("SDG&E") Distribution Resources Planning ("DRP") applications ("DRP Protest")[5] provides evidence of the value of bundles DER:

''Due to their differing load or output profiles and operating characteristics, DER can most effectively address individual customer loads or local system capacity constraints when deployed in bundles or as a portfolio. DER work together to shave the peaks and fill in the valleys of a load profile – Demand Response ("DR") /load control can shift load away from peak

[4] Proposed Decision of Commissioner Florio Adopting an Expanded Scope, Definition, and a Goal for the Integration of Demand-Side Resources, August 13, 2015, p. 2.

[5] Vote Solar's Protest of Utility Applications for Approval of Distribution Resources Plans (R.14-08-013), August 31, 2015.

or make load coincident with intermittent generation; storage absorbs energy from intermittent generation and can discharge to reduce peaks; Energy Efficiency ("EE") can provide targeted energy and demand reductions in specific end-uses. A bundled DER solution of renewable generation, storage, DR/load control, and EE can provide a more reliable and sustained peak demand reduction than any of the resources can provide individually. Furthermore, emerging smart inverter technology can increase PV and storage functionality and help address local constraints by dynamically managing real and reactive power to control voltage.

"To illustrate this point, the Maine Public Utilities Commission established the Boothbay Smart Grid Reliability Pilot project in 2013 to determine if bundled DER could effectively avoid the need for rebuilding a transmission line. Specifically, the pilot sought to reduce 1.8 MW of load to avoid an $18 million rebuild of a 34.5 kV transmission line in Central Maine Power's service territory. The DER deployed in the pilot included solar PV, EE, DR, energy storage, thermal storage and back-up generation, and collectively have exceeded the demand reduction target. The total cost for the pilot and deployment of the DER is projected to be one-third the cost of rebuilding the transmission line and will save ratepayers $17.6 million over the 10-year project life.[6]

"Another example of the value of bundled DER portfolios is Consolidated Edison's Brooklyn/Queens Demand Management Program, which intends to spend $200 million on customer-side DER in order to shed 41 megawatts of demand by 2018 and help defer building a $1 billion substation. The program will include many types of DER including EE, solar PV, and

[6] http://www.scotthemplinglaw.com/files/attachments/maine_interim_report_boothbay_smart_grid_reliability_pilot_p roject.pdf.

distributed storage. Con Edison's benefit-cost analysis shows a $40 million net present value benefit from this approach.[7]"[8]

Unfortunately, the language from the ACR Guidance suggests that DER bundles will not be evaluated until Phase 2(a), beginning in 2018.[9] In this regard, Vote Solar believes there is a significant disconnect between the DRP and the objectives of the IDSR. Before appropriate incentives for customer or third-party DER providers can be developed, optimal bundles/portfolios of DSR/DER must be identified and evaluated.

To avoid costly and unnecessary investments in 'grid modernization' projects, and to extract the greatest value from DER, for the benefit of customers, the grid and achieving the State's climate goals, Vote Solar believes utilities must evaluate and model bundled DER/DSR portfolios, which should serve as the basis for developing tariffs, incentives and market mechanisms for customers and third-party DER providers to offer these resources. We recommend that the PD be revised to require that a transparent and inclusive stakeholder process be established, as part of a joint DRP/IDSR effort, to develop and prioritize likely current and future DER portfolios and performance capabilities and specifications.

C. Aligning Utility Financial Motives With The Goal Of IDSR

As we stated in our DRP Protest, we believe there is a serious disconnect between the utilities' financial motivation to procure DERs from consumers or third-party providers that

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[7] http://www.transmissionhub.com/articles/2014/12/new-york-psc-establishes-con-edison-s-demand-management-program-in-brooklyn-queens.html

[8] Vote Solar's Protest of Utility Applications for Approval of Distribution Resources Plans, August 31, 2015, pp. 16-17.

[9] "…additional DER portfolios would be defined using the process of value optimization. The value optimization methodology will specify tools and processes to compare DERs as an alternative to traditional Distribution infrastructure investments, including both operations and economic factors." Assigned Commissioner's Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resources Planning, February 6, 2015, p. 12.

would defer or eliminate the need for system upgrades and the utilities' financial motivations.[10] It is evident from the proposed DRP plans, as well as their respective proposed EV charging infrastructure programs, the utilities are focused on making substantial investments in the distribution grid to accommodate DER. We do not begrudge the utilities' for their need or desire to earn a profit or their obligation to maximize shareholder value. However, unless their financial motives are aligned with the objectives of the IDSR proceeding, the Commission cannot expect the utilities to deploy DERs that provide optimal customer and system benefits at the expense of making capital investments in the grid on which they earn a rate of return.

Taking Commissioner Florio's cue from his statements in workshops, learning sessions and at the Pre-Hearing Conference to be bold, Vote Solar strongly urges, as recommended in the prior section, that the PD be revised to require the initiation of a stakeholder process to align utility financial motives with the goals of this proceeding, including identifying and implementing potential interim measures, to ensure maximum value and opportunity for DER providers and customers, and to avoid potentially costly and unnecessary 'grid modernization' investments. Such interim measures may include performance-based ratemaking pilots tied to meeting DER deployment aimed at deferring system upgrades, an interim allowance for the IOUs to place DER procurement into the ratebase up to the amount of the deferred capital investment until a permanent mechanism is developed, or establishing minimum DER procurement targets similar to the Renewable Portfolio Standard.

In the meantime, Vote Solar strongly encourages the Commission to carefully scrutinize any utility proposal for 'grid modernization' capital investments to ensure they have fully evaluated optimal DER portfolio options (similar to a 'non-wires' alternative for transmission

[10] Vote Solar's Protest of Utility Applications for Approval of Distribution Resources Plans, August 31, 2015, pp. 6-7.

planning) first and withhold approval until the Commission and all stakeholders better understand higher-penetration DER capabilities and impacts.

D. Phase II Pilots

Vote Solar recognizes there may be a need for pilots to explore DER sourcing mechanisms. We caution that these pilots should not delay implementation of other aspects of the end-to-end framework for DER/DSR procurement. There may be easy tariff mechanisms or incentives that can be deployed quickly, which should not be delayed by a distributed market pilot, for example.

Vote Solar also asks that the Commission include a requirement for coordinating and consolidating the proposed DRP demonstrations with pilots for other DER programs. For example, SCE, PG&E and SDG&E each have applications for approval for electric vehicle charging station programs that include limited vehicle-grid integration capabilities. These programs do not incorporate the results of the optimal locational benefits or integration capacity analyses in the DRP, nor do they sufficiently consider bundling with other forms of DER to avoid infrastructure upgrades, maximizing consumer value or any plans for integrating with a broader DRP/IDSR framework. We strongly urge the Commission to require the utilities to identify similar such programs that might fit into the IDSR framework and ensure they are aligned with the proposed IDSR guiding principles to the extent practicable.

III. PROPOSED NEW FINDINGS OF FACT

a) The phasing of R.14-10-003 and R. 14.08-013 for developing procurement mechanisms are not aligned.

b) The development of optimal DER/DSR bundles or portfolios will result in increased value to the grid and to consumers.

c) The DRP schedule does not address evaluating DER bundles until 2018.

d) There is a disconnect between the utilities' financial motivations and the goal of this proceeding that could result in costly and unnecessary 'grid modernization' investments at the expense of customer and third-party provided DER.

e) There are multiple utility pilots, demonstrations and/or programs, proposed and in effect, that potentially overlap with the objectives of this proceeding.

IV. PROPOSED NEW CONCLUSIONS OF LAW

a) Guiding principles for IDSR must be established and applied to DER/DSR related proceedings in order to ensure alignment with the goals and schedule of this proceeding.

b) Joint coordination between DRP/IDSR is necessary to ensure both processes are aligned and proceed expeditiously.

c) A stakeholder process needs to be established in order to guide the development of optimal bundles or portfolios of DER so that appropriate incentives, including locational incentives if deemed appropriate, can be developed.

d) A stakeholder process needs to be initiated in order to ensure that utility financial motives are aligned with the goals of this proceeding, including identifying and implementing potential interim/transitional measures, to ensure maximum value and opportunity for DER providers and customers, and to avoid potentially costly and unnecessary 'grid modernization' investments.

e) All utility proposals for 'grid modernization' capital investments must be carefully scrutinized to ensure the utilities have fully evaluated optimal DER bundles or portfolio options first.

f) The utilities must identify related pilots, demonstrations, or programs that might fit into the proposed IDSR framework and ensure they are aligned with the proposed IDSR guiding principles to the extent practicable.

V. CONCLUSION

Vote Solar appreciates the opportunity to offer these comments.

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Respectfully submitted,

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